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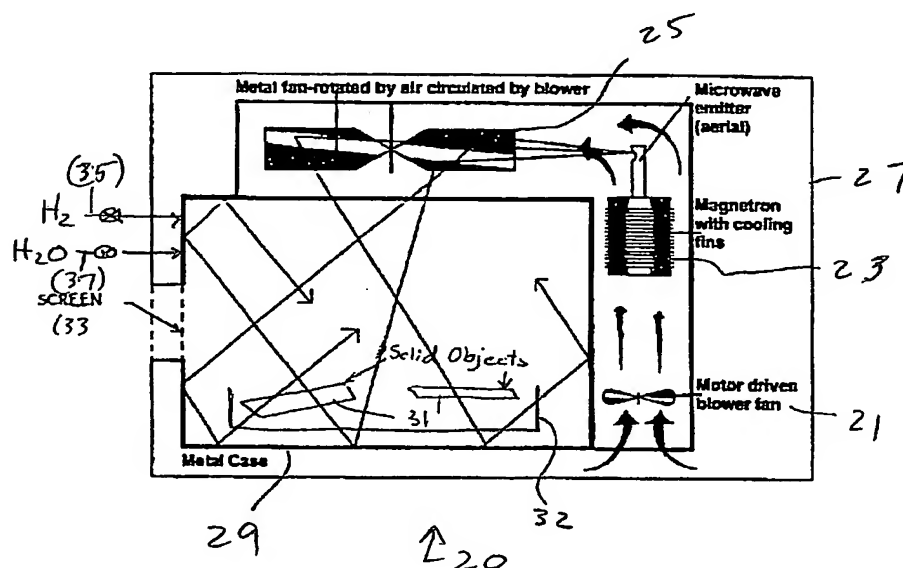
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ning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD OF CLEANSING CONTAMINATED AIR USING MICROWAVE RADIATION



(57) Abstract: An air conditioning system uses microwaves to effectively destroy airborne contaminants. In one mode, air (8) is passed through a microwave-transparent tube (6) and is subjected to microwaves in the presence of one or more of water, water vapor, steam or hydrogen to cause destructive dipole polarization, electrical coupling, hydrolysis, and/or interfacial polarization of the contaminants or impurities found in the air (8). In another mode, solids or liquids are decontaminated by subjecting the objects to microwaves. Paramagnetic dust particles in the air, especially underground railway air, can also be removed using an electromagnet.